

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

- 1 (Currently Amended). A headend of a cable network data communication system, comprising:
- a first cable modem termination system (CMTS) circuitry component having a receiver or transmitter, the first component including a first system timer adapted to be incremented by clock pulses, a first comparator connected to said first timer for determining when the first timer has reached a designated count and generating a first reset signal when the first timer has reached the designated count, and a first reset circuit connected to the first timer for resetting the first timer in response to [[a]] the first or a second reset signal;
 - a second CMTS circuitry component having a receiver or transmitter, the second component being adapted to serve as a swap-out replacement for the first component, and the second component including a second system timer adapted to be incremented by clock pulses, a second comparator connected to the second timer for determining when the second timer has reached a designated count and generating the second reset signal, and a second reset circuit connected to the second timer for resetting the second timer in response to [[a]] the first or the second reset signal; and
 - circuitry connected to the first and second components for selectively connecting the first comparator to provide the first reset signal to the second reset circuit and the second comparator to provide the second reset signal to the first reset circuit.
2. Canceled.

3(Original). A method for establishing timer synchronization between redundant active and standby circuit components of a headend of a cable network data communication system, comprising:

- providing a first cable modem termination system (CMTS) circuitry component including a system timer incremented by clock pulses;
- providing a second CMTS circuitry component including a system timer incremented by clock pulses; the second component being adapted to serve as a swap-out replacement for the first component;
- resetting the second component timer when the first timer has reached a designated count.

4(New). A method of selecting a cable modem termination system (CMTS) from a plurality of CMTSs in a headend of a cable network comprising:

- providing periodic reset signals from a first CMTS to a second CTMS of the plurality of CTMSs, wherein the first CMTS is an active CMTS in the headend providing service for a plurality of cable modems in the cable network and the second CTMS is a standby CTMS for the plurality of cable modems;
- monitoring the first CMTS for a predetermined event;
- upon detecting the predetermined event, switching the first CTMS with the second CTMS for providing service to the plurality of cable modems in the cable network.

5(New). A method according to claim 4, wherein monitoring the first CMTS comprises monitoring an output of the first CTMS and the predetermined event is at least one or more of:

- a drop in mean squared error of a signal output of the first CMTS;
- one or more erroneous forward error correction frames in the output of the first CTMS;
- and
- one or more erroneous media access control frames in the output of the first CTMS.

6(New). A method according to claim 4, wherein the step of providing periodic reset signals comprising:

- monitoring a count of a first timer in the first CTMS;

comparing the count with a predetermined number N; and
providing a reset signal to a second timer included in the second CTMS.

7(New). A headend for cable network system comprising:
a plurality of cable modem termination systems (CMTS) configured to provide data service to a plurality of modems, wherein a first CMTS of the plurality of CMTS is configured to provide periodic reset signals to a second CTMS of the plurality of CTMSs, wherein the first CMTS is an active CMTS in the headend providing service for the plurality of cable modems and the second CTMS is a standby CTMS for the plurality of cable modems; and
a monitoring unit coupled to the first and second CMTS and configured to monitor an output of the first CMTS for a predetermined event, and upon detecting the predetermined event, switch the first CTMS with the second CTMS for providing service to the plurality of cable modems in the cable network.

8(New). A headend according to claim 7, wherein the predetermined event is at least one or more of:
a drop in mean squared error of a signal output of the first CMTS;
one or more erroneous forward error correction frames in the output of the first CTMS;
and
one or more erroneous media access control frames in the output of the first CTMS.

9(New). A headend according to claim 7, wherein the first CTMS comprising:
a compare unit configured to a count of a first timer in the first CTMS with a predetermined number N; and provide a reset signal to a second timer included in the second CTMS.